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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,521	02/18/2000	Min Xie	15-CT-5271	7950

7590 10/29/2003

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EXAMINER	
DO, CHAT C	

ART UNIT	PAPER NUMBER
2124	14

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Advisory Action	Application No. 09/507,521	Applicant(s) XIE ET AL.	
	Examiner Chat C. Do	Art Unit 2124	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 20 August 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☒ The proposed amendment(s) will not be entered because:

   (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *See below*.

3. ☒ Applicant's reply has overcome the following rejection(s): See below.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See below*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: *13,14,19,20,33 and 35*.

   Claim(s) rejected: *2-3, 5-11, 15-17, 21-25, 27-32, and 34*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

Part 2(a): the applicant has amended every independent claims 15 and 31 to include the limitation "wherein log(x) is a funcitonof a disctance between a and the mantissa; and generate an image by usign the computed value of log(x)" that raise new issues that would require further consideration and/or search.

Part 3: The applicant has amended every independent claims 15 and 31 to include a limitation that overcome the 35 U.S.C. 101 rejections of claims 2-3, 5-7, 15-17, 21, 27-28, 31-32, and 34.

Part 5(c): Based on the non-amended claims, Smith discloses a method in Figure 3 for computing (equation 10) for a natural logarithm function. The method comprises the following steps: partitioning of mantissa (col. 3 lines 65-67 and col. 4 lines 1-5 where i is the index of that sub-region as described in equation 13) between 1 and 2 into N equally spaced sub-regions, precomputing ai (col. 4 lines 17-18) of each of N equally spaced sub-regions where i = 0 to N-1, selecting N sufficiently large (col. 4 lines 1-10) so that the first degree polynomial in computation of log(m) within a preselected degree of accuracy, and computing (abstract) a value of log(x) for binary floating point representation of a particular number x stored in a memory of a computing device. Smith does not disclose the precomputing point ai is the centerpoint of each of the sub-region. Smith does not discloses the computation of approximation of log(x) using first degree polynomial in m. However, Watson discloses a method of determining a value using a mid-point within a region for minimizing the error (col. 10 lines 30-35). In addition, it is well known in the art to use Taylor series to approximate a value. In order to minimize the computation process, the approximation of log(m) using Taylor series is utilizing the first degree polynomial of the Taylor series. Therefore, it would have been obvious to a person having ordinary skill in the art to use first order Taylor series to approximate the log(m) function and using the mid-point ai as the preference point because it would reduce the computation time and the region error.

TODD INGBERG
PRIMARY EXAMINER